Canadian Nuclear Safety Commission
Commission canadienne de sûreté nucléaire

REGULATORY
STANDARD

Making Changes to Dose-Related Information Filed with the National Dose Registry

S–260

October 2004

Canada

TYPES OF REGULATORY DOCUMENTS

The legal framework within which the Canadian Nuclear Safety Commission (CNSC) operates includes the *Nuclear Safety and Control Act*, its Regulations and other legal instruments such as licences, certificates and orders. The legal framework is supported by regulatory documents issued by the CNSC, the main classes of which are

Regulatory Policy (P): a document that describes the philosophy, principles or fundamental factors that underlie the CNSC's approach to its regulatory mission. It provides direction to CNSC staff and information to stakeholders.

Regulatory Standard (S): a document that describes CNSC requirements. It imposes obligations on the regulated party, once it is referenced in a licence or other legally enforceable instrument.

Regulatory Guide (G): a document that indicates acceptable ways of meeting CNSC requirements, as expressed in the Act, Regulations, regulatory standard or other legally-enforceable instrument. It provides guidance to licensees and other stakeholders.

Regulatory Notice (N): a document that provides licensees and other stakeholders with information about significant matters that warrant timely action.

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REGULATORY STANDARD

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MAKING CHANGES TO DOSE-RELATED INFORMATION FILED WITH THE NATIONAL DOSE REGISTRY

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Canadian Nuclear Safety Commission
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Regulatory Standard S–260

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Document availability

The document can be viewed on the CNSC Internet website at www.nuclearsafety.gc.ca. Copies may be ordered in English or French using the contact information below:

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MAKING CHANGES TO DOSE-RELATED INFORMATION FILED WITH THE NATIONAL DOSE REGISTRY

1.0 PURPOSE

The purpose of this Regulatory Standard, when incorporated in a licence or other legally enforceable instrument, is to require the licensee to seek Canadian Nuclear Safety Commission (CNSC) approval, in accordance with specified procedures, of any changes to dose-related information previously filed with the National Dose Registry (NDR) of Health Canada.

2.0 SCOPE

This Regulatory Standard, when incorporated in a licence or other legally enforceable instrument, sets out the requirements to be met by the licensee, including the process to be followed and the information to be provided to the CNSC and workers, when seeking CNSC approval of proposed changes to dose-related information previously filed with the NDR of Health Canada.

3.0 RELEVANT LEGISLATION

The following provisions of the *Nuclear Safety and Control Act* ("NSC Act," "Act") and regulations are relevant to the Standard:

1. subsection 24(4) of the Act, which prohibits the Commission from issuing, renewing, amending or replacing a licence, unless in the opinion of the Commission, the applicant is (a) qualified to carry on the activity that the licence will authorize the licensee to carry on, and (b) will, in carrying out that activity, make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed;
2. subsection 24(5) of the NSC Act, which provides that a licence issued by the Canadian Nuclear Safety Commission may contain any term or condition that the Commission considers necessary for the purposes of the Act;
3. paragraph 27(a) of the NSC Act, which requires licensees to keep prescribed records, including dose records;
4. section 5 of the *Radiation Protection Regulations*, which deals with the ascertainment and recording of doses;
5. section 7 of the *Radiation Protection Regulations*, which deals with the provision of information to nuclear energy workers;

6. section 8 of the *Radiation Protection Regulations*, which stipulates that "Every licensee shall use a licensed dosimetry service to measure and monitor the doses of radiation received by and committed to nuclear energy workers who have a reasonable probability of receiving an effective dose greater than 5 mSv in a one-year dosimetry period";
7. section 9 of the *Radiation Protection Regulations*, which deals with the collection of personal information; and
8. section 19 of the *Radiation Protection Regulations*, which stipulates that "Every licensee who operates a dosimetry service shall file with the National Dose Registry of the Department of Health, at a frequency specified in the licence and in a form compatible with the Registry, the following information with respect to each nuclear energy worker for whom it has measured and monitored a dose of radiation:
   a) the worker's given names, surname and any previous surname;
   b) the worker's Social Insurance Number;
   c) the worker's sex;
   d) the worker's job category;
   e) the date, province and country of birth of the worker;
   f) the amount of exposure of the worker to radon progeny; and
   g) the effective dose and equivalent dose received by and committed to the worker."

4.0 TERMINOLOGY

The Glossary at the end of the document defines the special terms used in this regulatory standard.

5.0 GENERAL PROCESS

The CNSC uses dose records to monitor licensee compliance with regulatory occupational dose limits. The dosimetry service reports the dose information to the NDR even if the dose information may be incorrect. Dose information already sent to the NDR may have to be changed for various reasons (e.g., following an investigation that concludes there is an incorrect overexposure record). Once the original dose is recorded, the user can initiate a dose information change as per this standard.

The following describes the general process to make a change to an NDR dose record when a user initiates the change to dose information:

1. The user submits to the CNSC a dose information change request, as described in section 6.2
2. The CNSC evaluates the request and approves or denies it based on the information provided.

3. If the CNSC approves the requested change, it sends a letter to the dosimetry service with the details of the change to be made and sends a copy to the user. A copy of the letter is also sent to the NDR; however, the dosimetry service sends the official notice of the change to the NDR.
4. If the CNSC denies the change request, it sends a letter informing the user of the refusal.

6.0 REQUIREMENTS

6.1 Approval

Users must seek CNSC approval to make a dose information change to a dose record in the NDR.

6.2 Dose Information Change Request Procedure

When submitting a request for approval to the CNSC to make a dose information change to a dose record in the NDR, the user shall undertake the following procedure:

1. The user shall provide the following information in "Section A – Licensee Declaration" of the Dose Information Change Request Form provided in Appendix B:
   a) dosimetry service name and Group or Account Number that refers to the number of the account assigned to the licensee by the dosimetry service;
   b) company name that appears on the dosimetry service dose report;
   c) licensee name that appears on the CNSC licence;
   d) name of the worker and his or her social insurance number;
   e) serial number of the dosimeter that is shown on the original dose report, if applicable;
   f) wearing period or monitoring period (e.g., 03/01/01 to 03/03/31) as listed on the original dose report, if applicable;
   g) investigation report, as described in section 6.3; and
   h) requested dose information change.
2. The Radiation Safety Officer or delegate shall complete, date and sign "Section A – Licensee Declaration" of the Dose Information Change Request Form.
3. The worker whose dose information will be affected shall sign and date "Section B – Worker Declaration" of the Dose Information Change Request Form.
4. The user shall mail the completed Dose Information Change Request Form and any attachments to the relevant CNSC licensing personnel (see Appendix A for contact information).

5. The user shall inform the affected worker of any change to the dose information.

6.3 Investigation Report

The user shall conduct an investigation of the event that prompted a request for a dose information change and summarize the information in an investigation report. The report shall contain the following information:

1. reasons for requesting the dose information change;
2. description of the circumstances and time frame involved;
3. calculations to support the request, when applicable;
4. copy of the relevant section of dosimetry service dose report; and
5. other relevant information, as determined by the CNSC licensing specialist, (e.g., a brief description of the person's work history and dose history).

GLOSSARY

For the purpose of this document, the following terms and definitions apply.

Change
Any modification to dosimetry information. Such a modification can include a decrease or an increase to an assigned dose value previously filed with the NDR. For the purpose of this document, changes to wearing periods are not included as a modification to dosimetry information.

CNSC
Canadian Nuclear Safety Commission

Committed
In respect of a dose of radiation, received by an organ or tissue from a nuclear substance during the 50 years after the substance is taken into the body of a person 18 years old or older or during the period beginning at intake and ending at age 70, after it is taken into the body of a person less than 18 years old, as defined in section 1 of the *Radiation Protection Regulations*.

Dose Information
The occupational radiation doses of monitored workers on record with the NDR. This dose information includes annual summaries, discrete dose details, cumulative dose totals, dose histories, dose type, pregnant worker dose information, and exposure to radon progeny. Dose information excludes other information in the worker's National Dose Registry record, such as the worker's name, date of birth, pregnancy declaration date, social insurance number, employer and job category.

Effective Dose
The sum of the products, in sievert, obtained by multiplying the equivalent dose of radiation received by and committed to each organ or tissue set out in column 1 of an item of Schedule 1 by the weighting factor set out in column 2 of that item, as defined in section 1 of the *Radiation Protection Regulations*.

Equivalent Dose
The product, in sievert, obtained by multiplying the absorbed dose of radiation of the type set out in column 1 of an item of Schedule 2 by the weighting factor set out in column 2 of that item, as defined in section 1 of the *Radiation Protection Regulations*.

National Dose Registry (NDR)
The centralized radiation dose record repository managed, updated and maintained by the Radiation Protection Bureau of the Department of Health (Health Canada).

User
Any CNSC licensee who uses a CNSC-licensed dosimetry service or a dosimetry service that is authorized under the licensee's Radiation Protection Program and is approved by the CNSC.

Worker
A person who performs work that is referred to in a licence, as defined in section 1 of the *Radiation Protection Regulations*.

APPENDIX A
CNSC CONTACT INFORMATION

Canadian Nuclear Safety Commission
Central Regional Office
P.O. Box 1046, Station B
280 Slater Street, 9th Floor
Ottawa, Ontario
K1P 5S9
Ph: 1-888-229-2672
Fx: (613) 995-5086

Canadian Nuclear Safety Commission
Uranium Mines and Lands Evaluation
Saskatoon Office
101 22nd Street E., Suite 307
Saskatoon, Saskatchewan
S7K 0E1
Ph: (306) 975-6376
Fx: (306) 975-6387

Canadian Nuclear Safety Commission
Bruce NGS-A Site Office
Technical Building
P.O. Box 3000
Tiverton, Ontario
N0G 2T0
Ph: (519) 361-3089
Fx: (519) 361-7507

Canadian Nuclear Safety Commission
Bruce NGS-B Site Office
P.O. Box 4000
Tiverton, Ontario
N0G 2T0
Ph: (519) 361-4010
Fx: (519) 361-7207

Canadian Nuclear Safety Commission
Pickering NGS-A & B Site Office
1675 Montgomery Park Road, Gate 1
Admin Building
Pickering, Ontario
L1V 2R5
Ph: (905) 831-8195
Fx: (905) 831-9849

Canadian Nuclear Safety Commission
Point Lepreau Site Office
P.O. Box 600
Lepreau, New Brunswick
E5J 2S6
Ph: (506) 659-2220
Fx: (506) 659-2418

Canadian Nuclear Safety Commission
Darlington NGS-A Site Office
P.O. Box 4000
Bowmanville, Ontario
L1C 3Z8
Ph: 1-800-263-8009 (7758) (from Ontario)
(905) 623-6670 (7758) (from other provinces)
Fx: (905) 623-5963

Canadian Nuclear Safety Commission
Gentilly-2 Site Office
4900 Bécancour Boulevard
Bécancour, Quebec
G9H 3X3
Ph: (819) 298-4334
Fx: (819) 298-2867

APPENDIX B
DOSE INFORMATION CHANGE REQUEST FORM

Table 1 provides information to be used to complete section 6b) of the Dose Information Change Request Form.

Table 1 – Source of Committed (Internal) Dose and Associated Reference Number

Radionuclide or Compound Containing a Radionuclide	Reference #
Americium- 241	1
Carbon-14 dioxide	2
Carbon- 14 particulate	3
Cerium- 144	4
Cesium- 137	5
Cobalt- 60	6
Iodine -131	7
Iodine- 125	8
Iron-59	9
Strontium- 90	10
Technetium- 99m	11
Tritium oxide	12
Tritium gas	13
Uranium ore dust	14
Uranium natural (U-238, U-234, U-235)	15
Zirconium/Niobium 95	16

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PROTECTED B once completed

Dose Information Change Request Form (page 1 of 2)

Once the form is complete, mail it to the relevant CNSC licensing personnel.

A – Licensee Declaration (All fields required except those indicated with asterisk [*]; please check or fill in all information)

1) Dosimetry service name: _____ Group or Account Number: _____

2) a) Company name as it appears on dose report: _____

b) Licensee name as it appears on the CNSC licence: _____

3) Name of the worker: _____ SIN number: _____ _____ _____

4) Serial number of the dosimeter, as listed on the original dose report, if applicable:

_____

5) The period of time the dosimeter was worn or the monitoring period, as listed on the original dose report, if applicable _____ to _____ (format: yy/mm/dd)

6) Effective dose: investigation report attached Y☐ N☐

a) Change the external component of the effective dose[1] from _____ mSv to _____ mSv

i) Type of radiation: ☐photon ☐neutron

b) Change the committed (internal) dose from _____ mSv to _____ mSv

i) Radionuclide reference number[2]: _____

c) Change the radon progeny exposure from _____WLM to _____WLM

d) Other change (specify:_____) from _____ mSv to _____ mSv

7) Equivalent dose: investigation report attached Y☐ N☐

a) Change the skin dose from _____mSv to _____mSv

b) Change the hand and feet dose from _____mSv to _____mSv

c) Change the lens of eye dose from _____mSv to _____mSv

Radiation Safety Officer or Delegate

☐Dr. ☐Mr. ☐Mrs. ☐Ms.

Given name: _____ Initial*: _____ Surname: _____

Signature: _____ Date: _____ Phone number: _____

E-mail address*: _____ Fax number*:_____

[1] Sometimes referred to as whole body dose

[2] See Table 1 - Source of Committed (Internal) Dose and Associated Reference Number provided in this appendix

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PROTECTED B once completed

Dose Information Change Request Form (page 1 of 2)

Once the form is complete, mail it to the relevant CNSC licensing personnel.

A – Licensee Declaration (All fields required except those indicated with asterisk (*); please check or fill in all information)

1) Dosimetry service name: _____ Group or Account Number: _____

2) a) Company name as it appears on dose report: _____

b) Licensee name as it appears on the CNSC licence: _____

3) Name of the worker: _____ SIN number: _____

4) Serial number of the dosimeter, as listed on the original dose report, if applicable:

_____

5) The period of time the dosimeter was worn or the monitoring period, as listed on the original dose report, if applicable: _____ to _____ (format: yy/mm/dd)

6) Effective dose: investigation report attached Y☐ N☐

a) Change the external component of the effective dose[1] from _____ mSv to _____ mSv

i) Type of radiation: ☐photon ☐neutron

b) Change the committed (internal) dose from _____ mSv to _____ mSv

i) Radionuclide reference number[2]: _____

c) Change the radon progeny exposure from _____WLM to _____WLM

d) Other change (specify: _____) from _____ mSv to _____ mSv

7) Equivalent dose: investigation report attached Y☐ N☐

a) Change the skin dose from _____mSv to _____mSv

b) Change the hand and feet dose from _____mSv to _____mSv

c) Change the lens of eye dose from _____mSv to _____mSv

Radiation Safety Officer or Delegate

☐Dr. ☐Mr. ☐Mrs. ☐Ms.

Given name: _____ Initial*: _____ Surname: _____

Signature: _____ Date: _____ Phone number: _____

E-mail address*: _____ Fax number*: _____

[1] Sometimes referred to as whole body dose

[2] See Table 1 - Source of Committed (Internal) Dose and Associated Reference Number provided in this appendix

Dose Information Change Request Form

B – Worker Declaration (All fields required except those indicated with asterisk (*); please check or fill in all information)

☐Dr. ☐Mr. ☐Mrs. ☐Ms.

Given name: _____ Initial*: _____ Surname: _____

Serial number of the dosimeter: _____

I have been informed of the requested change to my dose information. I accept this change, and understand its implications.

Signature: _____ Date: _____ Phone number: _____

E-mail address*: _____ Fax number*: _____

FOR CNSC USE ONLY:
Directorate/Year/Licence number: ____ / ____ / ____ Request number: ____

Request reviewed by:

☐Dr. ☐Mr. ☐Mrs. ☐Ms.

Given name: _____ Initial*: _____ Surname: _____

Signature: _____ Date: _____ Phone number: _____

E-mail address*: _____ Fax number*: _____

Comments: _____

_____

_____

Approved by:

Director

☐Dr. ☐Mr. ☐Mrs. ☐Ms.

Given name: _____ Initial*: _____ Surname: _____

Signature: _____ Date: _____ Phone number: _____

E-mail address*: _____ Fax number*: _____

Ce document est également disponible en français.

Dose Information Change Request Form (page 2 of 2)

B – Worker Declaration (All fields required except those indicated with asterisk (*), please check or fill in all information)

☐Dr. ☐Mr. ☐Mrs. ☐Ms.

Given name: _____ Initial*: _____ Surname: _____

Serial number of the dosimeter: _____

I have been informed of the requested change to my dose information. I accept this change, and understand its implications.

Signature: _____ Date: _____ Phone number: _____

E-mail address*: _____ Fax number*: _____

FOR CNSC USE ONLY:
Directorate/Year/Licence number: / / Request number:

Request reviewed by:

☐Dr. ☐Mr. ☐Mrs. ☐Ms.

Given name: _____ Initial*: _____ Surname: _____

Signature: _____ Date: _____ Phone number: _____

E-mail address*: _____ Fax number*: _____

Comments: _____

_____

_____

Approved by:

Director

☐Dr. ☐Mr. ☐Mrs. ☐Ms.

Given name: _____ Initial*: _____ Surname: _____

Signature: _____ Date: _____ Phone number: _____

E-mail address*: _____ Fax number*: _____

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